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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/589,491	MASAKI ET AL.	
	Examiner	Art Unit	
	GREG A. BORSETTI	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1-13 are pending.

2. Claims 1-2, 4-5, and 11-13 have been amended.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/31/2009 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

¶ 0040 of the specification states "the purpose reception unit 102 receives from the user an instruction for extracting and outputting a predetermined section in the AV

content." Therefore the "first reception unit" and the purpose reception unit" are the same thing as described by claim 1 and ¶ 0040.

Thus, as described in ¶ 0040, there are not two separate receiving steps. The user inputs and instruction for extracting and outputting a predetermined section and the purpose reception unit operates on this input to determine meaning from the input. So, there is one input and two operations on the input. Furthermore, the receiving steps are out of order as described in the claims because the purpose reception unit cannot operate on the input until it has been received from the user. The Examiner contends the receiving step involving a user should be listed before the receiving step involving a purpose for the reasons above. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Under the most recent interpretations of the interim guidelines claim 11 is no longer considered to be statutory subject matter. Although the claim passes the machine or transformation test by "receiving, from a first reception unit used by a user..." The claim fails to identify a machine that imposes a meaningful limit on the claim's scope because it only involves a field-of-use limitation. In essence, the machine test was satisfied under the former interpretations by tying the

"receiving" step to a machine. The machine, as tied to this step, does not impose a meaningful limit on the claim scope. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 5, 7, 9, and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Covell et al. (US Patent #6782186).

As per claim 1, Covell teaches the device comprising:

an acquisition unit for acquiring boundary information indicative of a boundary between the program section and the CM section, indicating a number of unit CM sections included in the CM section and indicating a position of each unit CM section; (Covell, columns 6-7, lines 61-67, 1-4, ...*Incoming information is characterized using summary statistics and then pattern matched to previously memorized information. Block 16 determines if a successful match has been found in the incoming information and directs subsequent control appropriately*..., Covell describes an acquisition unit (block 14) which receives information that is compared to determine if an unwanted segment is detected. Although it is not explicitly stated, block 14 would inherently

determine boundary information because it would have to mark the starting and the ending locations of the unwanted segment. Furthermore, column 9, lines 30-59, and Fig. 2b teaches a number of sections (frames) included in the CM section and indicating a position of each unit CM section (previous/subseq. 52, 53).)

a purpose reception unit for receiving an instruction of a purpose, selected from reproduction and edit, of the AV content; (Covell, Fig. 1, column 6, lines 7-60, *...an operating mode is then selected by the user as represented in block 10...* The user inputs whether they want to surf or zap commercials which is a editing operation of the AV content.)

a first reception unit for receiving from a user an instruction for extracting and outputting a predetermined section of the AV content; (Covell, column 4, lines 58-63, *...the present invention does not require the user to locate such broadcast information, but only to provide a representative sample of the stable (repeated from installment to installment) introductory information and the length of time to record once the introductory information is located...*, The user inputs an instruction to extract and output a predetermined section in the AV content, which is the desired segment.)

a boundary correction unit for, when the predetermined section of the AV content is extracted in accordance with the instruction received by the purpose reception unit, selecting, in accordance with the instruction received by the first reception unit, whether the boundary is shifted in one of a direction causing the CM section to be short and a direction causing the CM section to be long, and for correcting a content of the boundary information to cause the boundary to shift in accordance with the selected

direction of the boundary shift; and (Covell, column 16, lines 33-45 and column 18, lines 5-24, ...*The difference is that the assisted-marking functions provide for automatically extending and/or trimming of the memorized sequences using the incoming information stream until the memorized sequences consist of individual, cohesive units of information. A cohesive unit describes an information segment which is always observed as a unit*..., The assisted-marking zapping function teaches a boundary correction unit because it can shift the boundary of the sequences (CM sections). Furthermore, the AV content is edited based on the selection that the user has made to zap or surf. Column 6, lines 12-34, ...*the zapping function is used to avoid recording previously encountered information segments*... Therefore the recorded segment is extracted without the commercials as per the instruction to "zap" the commercials.)

an output control unit for determining, when the instruction is received by the first reception unit, the boundary between the program section and the CM section in accordance with the corrected boundary information, and extracting and outputting a section of the AV content indicated by the instruction and based on the corrected boundary information. (Covell, column 18, lines 62-64, ...*step 332 controls a recording device to begin recording the incoming information for the time specified by the user*..., Covell describes an output control unit that records the data subsequent to the chunking and pointer analysis for boundary determination in accordance with Fig. 9. The output is based on the corrected boundary information because it the commercials

are "zapped" or removed based upon the sequences of commercials that are stored or user–tagged.)

As per claim 2, claim 1 is incorporated and Covell discloses:

wherein the first reception unit is operable to receive, from the user, (i) a program output instruction for outputting at least a portion of the program section of the AV content and (ii) a CM output instruction for outputting at least a portion of the CM section of the AV content; (Covell, columns 9-10, lines 66-67,1, *...For example, the user may mark the beginning credits of a favorite program or the user may mark a disliked commercial advertisemen*t..., Covell describes that the user may mark for both recording and omission. This inherently means that the unit which receives the input from the user is operable to mark a program or a commercial for recording.)

wherein the boundary correction unit (i) corrects the content of the boundary information to cause the boundary to shift in the direction causing the CM section to be short when the instruction of the purpose received by the purpose reception unit is an instruction for reproduction of the AV content and the program output instruction is received by the first reception unit, and (ii) corrects the content of the boundary information to cause the boundary to shift in the direction causing the CM section to be long when the instruction of the purpose received by the purpose reception unit is an instruction for edit of the AV content and the CM output instruction is received by the first reception unit; (Covell, column 16, lines 33-45 and column 18, lines 5-24, *...The difference is that the assisted-marking functions provide for automatically*

extending and/or trimming of the memorized sequences using the incoming information stream until the memorized sequences consist of individual, cohesive units of information. A cohesive unit describes an information segment which is always observed as a unit…, The assisted-marking zapping function teaches a boundary correction unit because it can shift the boundary of the sequences (CM sections) based on the user "zapping", column 16, 33-45, ...*The assisted-marking zapping function and the assisted-marking surfing function (illustrated in FIG. 9) are similar to the user-marked zapping and surfing functions, respectively. The difference is that the assisted-marking functions provide for automatically extending and/or trimming of the memorized sequence*s…, the assisted functions use user input but automatically extend or trim the sequences. Furthermore, when the purpose reception unit receives "surf" (fig. 1), Covell's assisted surfing function (fig. 9) may extend the recognized boundaries of the surfed sequence which is the program sequence. If the program sequence is extended at its boundaries, the commercial sequence boundaries are shortened. When the purpose reception unit receives "zap" (fig. 1) Covell's assisted zapping function (fig. 8) may extend the commercial sequence as to delete as much of the commercial as possible.)

wherein the output control unit (i) extracts and outputs, when the program output instruction is received by the first reception unit, a section identified as a program section according to the corrected boundary information, and (ii) extracts and outputs, when the CM output section is received by the first reception unit, a section identified as a CM section according to the corrected boundary information. (Covell,

column 18, lines 62-64, *...step 332 controls a recording device to begin recording the incoming information for the time specified by the u*ser..., Covell describes an output control unit that records the data subsequent to the chunking and pointer analysis for boundary determination in accordance with Fig. 9.)

As per claim 5, claim 1 is incorporated and Covell discloses:

a detection unit for calculating a parameter indicating characteristics of one of a sound and an image included in the AV content and for detecting, as a characteristic section, a section of the AV content for which the parameter satisfies a predetermined condition, (Covell, columns 4-5, lines 64-67, 1-2, ...*Another advantage of the present invention is its applicability to a variety of media sources. The present invention is not limited to audio and/or video information, or broadcast information in general, but may be utilized for sequential pattern matching of virtually any time-based information sign*al..., Covell discloses that audio and video information is used for sequential pattern matching which would inherently define parameters which satisfy conditions for characteristic sections. Fig. 1 shows modules 12 and 14 which compute statistics and use them for pattern matching which teach the instant application.)

wherein the first reception unit is operable to receive from the user, a characteristics output instruction for extracting and outputting the characteristic section in the program section; (Covell, column 6, lines 48-54, *...The information which is learned may be marked by the user or automatically marked by the system depending upon the particular mode selected in step 10. Information marked by a user*

for the surfing mode should include stable (repeated from installment to installment) identification information, such as opening credits or a title screen in the case of video information… The user provides stable characteristic output instructions for defining the bounds of the program, which would inherently contain the characteristic section that the user wants to see. In this case, the repeatable opening credits define a characteristic output instruction bounds where the opening credits are the characteristic section.)

wherein the boundary correction unit corrects, when the instruction of the purpose received by the purpose reception unit is an instruction for reproduction of the AV content and the characteristics output instruction is received by the first reception unit, the content of the boundary information to cause the boundary to shift in the direction causing the CM section to be short; and (Covell, column 16, lines 33-45 and column 18, lines 5-24, *...The difference is that the assisted-marking functions provide for automatically extending and/or trimming of the memorized sequences using the incoming information stream until the memorized sequences consist of individual, cohesive units of information. A cohesive unit describes an information segment which is always observed as a unit…*, The assisted-marking zapping function teaches a boundary correction unit because it can shift the boundary of the sequences (CM sections) based on the user "zapping", column 16, 33-45, *...The assisted-marking zapping function and the assisted-marking surfing function (illustrated in FIG. 9) are similar to the user-marked zapping and surfing functions, respectively. The difference is that the assisted-marking functions provide for automatically extending and/or trimming*

*of the memorized sequence*s…, the assisted functions use user input but automatically extend or trim the sequences. If the user inputs "surf" (fig. 1) the program section is extended and thus the commercial boundaries are shortened (fig. 9).)

wherein the output control unit extracts and outputs, when the characteristics output instruction is received by the first reception unit, the characteristic section included in a section identified as a program section according to the corrected boundary information. (Covell, column 18, lines 62-64, …*step 332 controls a recording device to begin recording the incoming information for the time specified by the us*er… Covell describes an output control unit that records the data subsequent to the chunking and pointer analysis for boundary determination in accordance with Fig. 9.)

As per claim 7, claim 1 is incorporated and Covell discloses:

the boundary correction unit selects an amount of shift performed for a boundary indicating a start point and boundary indicating an end point of the CM section, based on a length of a program section immediately before the CM section;
(Covell, column 18, lines 5-24, …*If the matched sequence is long enough as determined in step 288, step 290 updates the "chunking" of the memorized information. This step updates the sequencing information between the memorized frames that were matched and the memorized frames which were not matched so that the sequences contained in the memorized tables only cover pieces (chunks) of information which always occur together. The starting point of the matched sequence will form a*

"segment boundary" provided there was incoming information (which failed to match) immediately preceding that starting frame. In this case, the pointers which cross this segment boundary are nulled which indicates that the corresponding frame identifiers on either side of the segment boundary are "boundary frames". Similarly, the ending point of the matched sequence is updated. Thus, if memorized information follows the matched information, the pointers across this segment boundary are nulled and the frame identifiers on either side of the segment become boundary frames as well. Once the memorized sequence is divided into chunks (if necessary), only the chunk that contains the user-marked frame is retained..., The chunking process sets the boundary frames to be the extension of the pointers which cross the segment boundary for whatever is chosen to be recorded. If a program is chosen to be recorded, the boundaries for the program section are extended. Inherently, the boundaries of the commercial section would be shortened due to the lengthening of the program section. This changes the amount of shift in the commercial section because the detection points remain the same, just that the boundaries are changed to accommodate the change in the length of the program section.)

As per claim 9, claim 1 is incorporated and Covell discloses:

the boundary correction unit corrects, when a predetermined condition is satisfied for the CM section, the boundary information such that a boundary that indicates a start point of the CM section and a boundary that indicates an end point of the CM section are erased. (Covell, column 11, lines 54-59, *...At step 108 of FIG. 4, the*

starting location (i.e. frame number or position) for a memorized recording is cached. This will be used in rewinding or reversing the recording to delete the memorized information detected within the incoming information stream if a sufficient number of sequential frames are matched... The CM section is erased upon matching, which teaches a predetermined condition.)

Claims 11-13 are rejected under the same principles as claim 1. Claim 11 cites the method as performed by the device of claim 1, claim 12 cites the computer program executing the steps of claim 1 and claim 13 cites the integrated circuit performing the steps of claim 1. (Covell, column 19, lines 3-12) discloses "Preferably, control logic 340 is implemented by a computer programmed to effect system operation as illustrated in FIGS. 1 through 9. Of course, the system and method of the present invention may be effected with control logic implemented utilizing a number of combinations of general purpose and special purpose hardware and software, such as application-specific integrated circuits (ASICs), reduced instruction set controllers (RISCs), programmable logic arrays (PLAs), discrete components, or the like." Covell discloses the use of software and hardware which teach the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3-4, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable by Covell et al. (US Patent #6782186).

As per claim 3, claim 2 is incorporated and Covell teaches:

a second reception unit for receiving, from the user, a skip instruction for skipping a portion of the AV content being outputted by the output control unit, wherein when the skip instruction is received by the second reception unit during an output of the AV content between (i) a boundary indicating a start point of a CM section according to the corrected boundary information that is not corrected and (ii) a boundary indicating a start point of the CM section according to the corrected boundary information, the output control unit causes the output of the AV content skip to an end point of the CM section according to the corrected boundary information having been corrected, and wherein, when the skip instruction is received by the second reception unit during an output of the AV content between a (i) boundary indicating an end point of the CM section according to the boundary information that is not corrected and (ii) a boundary indicating the end point of the CM section according to the corrected boundary information, the output control unit causes the output of the AV content to skip to the end point of the CM section according to the boundary information that is not corrected.

(Covell, column 16, lines 23-29, *...Unlike the user-marked input process illustrated in FIGS. 3a and 3b, the assisted-marking input process of FIG. 7 automatically determines the endpoint of the sequence as being the minimum sequence*

length for a successful match (determined at step 230) after the user-marked point (determined at step 228)..., Covell has the option of operating in user-marked or assisted-marked processes. Provided the input falls within corrected and uncorrected boundaries, the user can operate in user-marked or assisted-marked input processes. It would have been obvious to someone of ordinary skill at the time of invention that the same outcome is attained by having user-marked and assisted-marked processes. The user can either define the length of the boundaries personally or the assisted-marked process will define the minimum sequence length for a successful match. Thus, either the shortest length of the commercial or the longest length could be defined which defines a range over which the instant application is analogous.)

As per claim 4, claim 1 is incorporated and Covell discloses:

a detection unit for calculating a parameter indicating characteristics of one of a sound and an image included in the AV content and for detecting, as a characteristic section, a section of the AV content for which the parameter satisfies a predetermined condition, (Covell, columns 4-5, lines 64-67, 1-2, ... *Another advantage of the present invention is its applicability to a variety of media sources. The present invention is not limited to audio and/or video information, or broadcast information in general, but may be utilized for sequential pattern matching of virtually any time-based information signal*..., Covell discloses that audio and video information is used for sequential pattern matching which would inherently define parameters which satisfy conditions for characteristic sections. Fig. 1 shows modules 12 and 14 which compute statistics and

use them for pattern matching which teach the instant application.)

wherein the first reception unit is operable to receive, from the user, a characteristics output instruction for extracting and outputting the characteristic section in the program section, (Covell, column 6, lines 48-54, ...*The information which is learned may be marked by the user or automatically marked by the system depending upon the particular mode selected in step 10. Information marked by a user for the surfing mode should include stable (repeated from installment to installment) identification information, such as opening credits or a title screen in the case of video information*..., The user provides stable characteristic output instructions for defining the bounds of the program, which would inherently contain the characteristic section that the user wants to see. In this case, the repeatable opening credits define a characteristic output instruction bounds where the opening credits are the characteristic section.)

wherein the boundary correction unit corrects, when the instruction of the purpose received by the purpose reception unit is an instruction for edit of the AV content and the characteristics output instruction is received by the first reception unit, the content of the boundary information to cause the boundary to shift in the direction causing the CM section to be long, and (Covell, column 17, lines 60-66, ...*If the end of a memorized sequence is detected at step 284, then step 286 determines whether it is appropriate to extend the memorized video forward in time (as explained with reference to step 270). If the end of the matched memorized sequence is not a boundary frame (as defined below under step 290), the memorized information*

*should be extended forward in ti*me..., A characteristics output instruction is taught by a memorized sequence with a definable boundary frame. Thus, the program section does not extend the memorized video forward in time (extending the boundary of the program) which inherently means that the commercial frame is extended backward in time by the difference of not having the program extended forward in time. If the "zap" function is chosen (fig. 1), Fig. 8 shows that the assisted zapping function extends the commercial segment to remove as much of the commercial as possible.)

wherein the output control unit extracts and outputs, when the characteristics output instruction is received by the first reception unit, the characteristic section included in a section identified as a program section according to the corrected boundary information. (Covell, column 18, lines 62-64,...*step 332 controls a recording device to begin recording the incoming information for the time specified by the user*..., Covell describes an output control unit that records the data subsequent to the chunking and pointer analysis for boundary determination in accordance with Fig. 9.)

As per claim 6, claim 1 is incorporated and Covell discloses:

wherein the acquisition unit further acquires CM number information indicating a number of unit CM sections including in the CM section and length information indicating a length of the CM section, and wherein the boundary correction unit selects an amount of shift performed for a boundary that indicates a start point of the CM section and for a boundary that indicates an end point of the CM section, based on the

CM number information and the length information of the CM section.

(Covell, column 18, lines 5-24, ...*If the matched sequence is long enough as determined in step 288, step 290 updates the "chunking" of the memorized information. This step updates the sequencing information between the memorized frames that were matched and the memorized frames which were not matched so that the sequences contained in the memorized tables only cover pieces (chunks) of information which always occur together. The starting point of the matched sequence will form a "segment boundary" provided there was incoming information (which failed to match) immediately preceding that starting frame. In this case, the pointers which cross this segment boundary are nulled which indicates that the corresponding frame identifiers on either side of the segment boundary are "boundary frames". Similarly, the ending point of the matched sequence is updated. Thus, if memorized information follows the matched information, the pointers across this segment boundary are nulled and the frame identifiers on either side of the segment become boundary frames as well. Once the memorized sequence is divided into chunks (if necessary), only the chunk that contains the user-marked frame is retained*..., The chunking process sets the boundary frames to be the extension of the pointers which cross the segment boundary for whatever is chosen to be recorded. The acquisition unit determines the boundaries of the program and commercial sections by position information. Covell does not explicitly teach CM number and length information, but it would have been obvious to someone of ordinary skill in the art that the number and length information would be used to define the position information. Boundary correction performs correction based upon

position inherently. When the user defines wanted material, the position is determined and the boundaries are corrected. The rejected material is also corrected by proxy because of its positional relationship to the wanted material.)

As per claim 8, claim 1 is incorporated and Covell discloses:

wherein the boundary correction unit selects an amount of shift performed for a boundary that indicates a start point of the CM section and for a boundary that indicates an end point of the CM section, based on a ratio between a length from a start of the AV content to the CM section and a length of the entire AV content

(Covell, column 18, lines 5-24, ...*If the matched sequence is long enough as determined in step 288, step 290 updates the "chunking" of the memorized information. This step updates the sequencing information between the memorized frames that were matched and the memorized frames which were not matched so that the sequences contained in the memorized tables only cover pieces (chunks) of information which always occur together. The starting point of the matched sequence will form a "segment boundary" provided there was incoming information (which failed to match) immediately preceding that starting frame. In this case, the pointers which cross this segment boundary are nulled which indicates that the corresponding frame identifiers on either side of the segment boundary are "boundary frames". Similarly, the ending point of the matched sequence is updated. Thus, if memorized information follows the matched information, the pointers across this segment boundary are nulled and the frame identifiers on either side of the segment become boundary frames as well. Once*

*the memorized sequence is divided into chunks (if necessary), only the chunk that contains the user-marked frame is reta*ined…, The chunking process sets the boundary frames to be the extension of the pointers which cross the segment boundary for whatever is chosen to be recorded. The acquisition unit determines the boundaries of the program and commercial sections by position information. Covell does not explicitly teach a ratio between a length from a start of the AV content to the CM section and a length of the entire AV content, but it would have been obvious to someone of ordinary skill in the art that the ratio and length information would be used to define the position information. Boundary correction performs correction based upon position inherently. When the user defines wanted material, the position is determined and the boundaries are corrected. The rejected material is also corrected by proxy because of its positional relationship to the wanted material.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable by Covell et al. (US Patent #6782186 hereinafter Covell) in view of Dagtas et al. (US Pre-Grant Publication #20020080286 hereinafter Dagtas).

As per claim 10, claim 1 is incorporated and Covell fails to teach, but Dagtas teaches:

the boundary correction unit changes an amount of shift performed for the boundary based on the acquired program information. (Dagtas, ¶ 0051, …*The weighting factor may be a number that represents the relative importance assigned to the category change in assessing the likelihood of locating a boundary at the point*

where the particular change in category occurs. For example, if it is determined that a change from "silence" to "music" is more likely to be associated with an initial boundary, then the numerical factor that represents that particular category change may be multiplied by a "weighting factor" to increase the relative impact of that particular category change in determining the likelihood of the existence of an initial boundary..., It would be obvious to someone of ordinary skill in the art that audio information could be acquired from the program as auxiliary information such as music as shown above. That information is used to define the boundaries of the program or commercial sections in which shifting would take place according to the invention of Covell.

Covell and Dagtas are analogous art because both pertain to the identification of program segments and the rejection of commercial segments. It would have been obvious to someone of ordinary skill in the art at the time of the invention to combine Dagtas with the Covell device because "It is also an object of the present invention to provide an improved system and method for identifying boundaries using classification of audio signals into audio subcategories such as speech with background music, speech with background noise, music invention that follows (Dagtas, ¶ 0020)." Dagtas provides additional method for identifying program boundaries to the Covell device which further modifies the boundaries based upon analysis.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to PTO-892, Notice of References Cited for a listing of

analogous art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREG A. BORSETTI whose telephone number is (571)270-3885. The examiner can normally be reached on Monday - Thursday (8am - 5pm Eastern Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHEMOND DORVIL can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Greg A. Borsetti/
Examiner, Art Unit 2626

/Talivaldis Ivars Smits/
Primary Examiner, Art Unit 2626 10/29/2009